No.



8300061

THE UNIVERD STAYLES OF AMIERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME;

Rogers Brothers Seed Company

Withereas, there has been presented to the

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF eighteen years from the date of this grant, subject to the payment of the required fees and periodic replenishment of viable basic seed of the variety in a public repository as provided by LAW, the right to exclude others from selling the variety, or oppering it for sale, or reproducing it, importing it, or exporting it, or using it in producing a hybrid or different ty therefrom, to the extent provided by the Plant Variety Protection Act T. 1542, as amended, 7 u.s.c. 2321 et seq.)

BEAN

'Agate'

In Lestimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington this 29th day of June in the year of our Lord one thousand nine hundred and eighty-four.

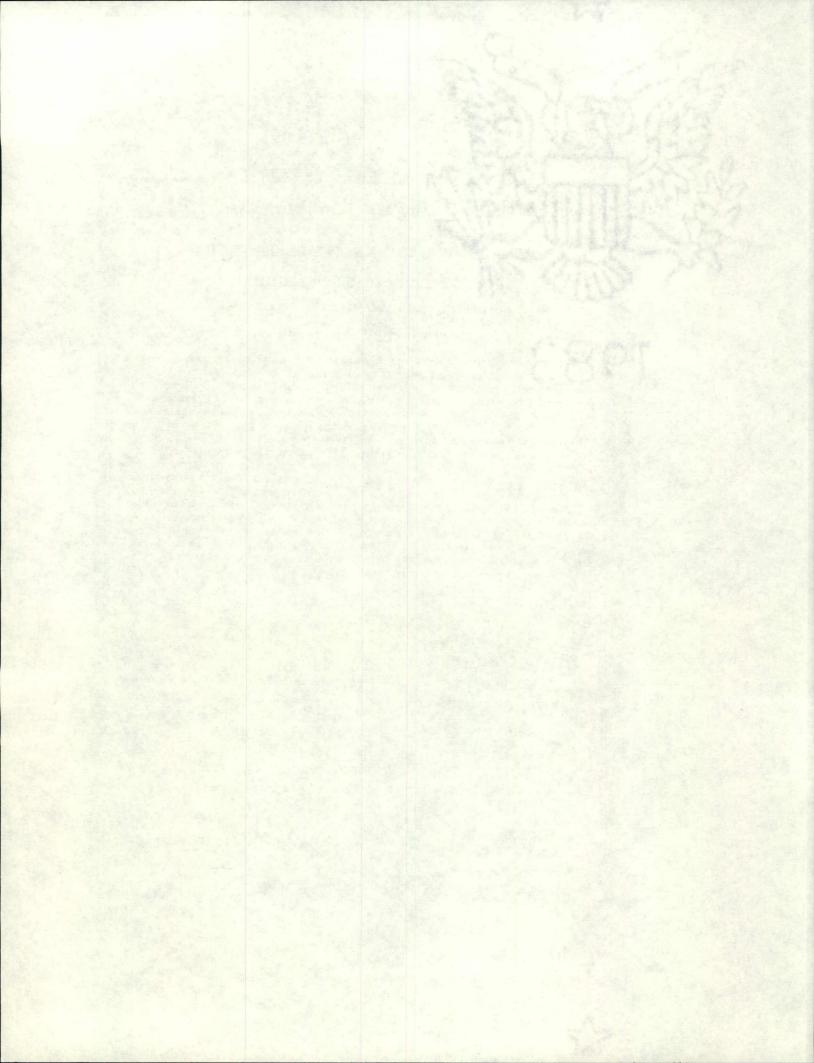
Secretary of Agriculture

Attest:

Lengell

Commissioner

Plant Variety Protection of
Livestock, Meat, Grain &
Agricultural Marketing Serve



U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE LIVESTOCK, POULTRY, GRAIN & SEED DIVISION BELTSVILLE, MARYLAND 20705

EXHIBIT C (Bean)

OBJECTIVE DESCRIPTION OF VARIETY BEAN (Phaseolus vulgaris L.)

ROGERS BROTHERS SEED COMPANY ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) P.O. Box 80 Idaho Falls, Idaho 83402 Place numbers in the boxes (e.g. 0 8 9) for the characters the plants. Ranges may also be given. Royal Horticultural Society or any redesignate system used:	our variety if the inf	dard may be used to determine plant colors; The location of test area is Twin Falls.
P.O. Box 80 Idaho Falls, Idaho 83402 Place numbers in the boxes (e.g. 0 8 9) for the characters the plants. Ranges may also be given. Royal Horticultural Society or any redesignate system used:	our variety if the inf	VARIETY NAME OR TEMPORARY DESIGNATION AGATE s variety. Measured data should be for SPACED dard may be used to determine plant colors; The location of test area is Twin Falls, formation is available.
designate system used: Idaho Please answer questions appropriate for your street of the system used: 1	our variety if the inf	dard may be used to determine plant colors; The location of test area is Twin Falls, ormation is available.
1. TYPE: 1 1 = Field (dry-edible) 2 = Garden 2. MARKET MATURITY: 5 yr.average		
	Days	s to green shells
8 4 Days to dry seeds physiological maturity	(90% pods b	uckskin)
Heat units to edible pods	Heat	t units to green shells
Heat units to dry seeds		
No. days earlier than	1 = Tendercrop 3 = Kinghorn W 5 = Michelite 62 7 = Bush Blue L	lax 4 = White Kidney 6 = Dwarf Horticultural
PLANT:		
1 1 = Determinate	2 = Indeterminate	
4 6 cm height 18"		
cm shorter than		
Same as	comparison variet	y from above
1 0 cm taller than		
5 6 cm spread	3 Num	ber primary branches near base
1 0 cm narrower than	comparison	Branching habit: 1 = compact 2 = open
width same as	from above	per la company
cm wider than		
1 Main stalk: 1 = brittle 2 = wirey		1 = stout 2 = thin

8. SEED SHAPE AND SIZE: (Cont'd)	
1 = truncate ends 2 = rounded ends	
3 3 gm/100 seed	
gm/100 seed lighter than	
gm/100 seed same as	comparison variety from page one
gm/100 seed heavier than	
9. ANTHOCYANIN: (1 = absent 2 = present) As color	develops
1 Stems 2 in seed	coat 2 Seeds I Leaves
10. DISEASE RESISTANCE (0 = not tested 1 = susceptible 2 = resistant):
Anthracnose (specify race below)	0 Fuscous blight
Rust (specify race below) 5 - 22	0 Red node virus
O Powdery mildew	O Pod mottle virus
0 Fusarium root rot	2 Bean common mosaic virus (specify strain below) BV ₁ & NY _{1.5}
O Pythium root rot	0 Mosaic mottle
Rhizoctonia root rot	0 Black root
O Pythium wilt	0 Bean yellow mosaic virus
O Angular leaf spot	1 Curly top
Bacterial wilt	1 Other (specify below) Common blight
Halo blight (specify race below)	
11. INSECT RESISTANCE: (0 = not tested 1 = susceptible 2 = resistant)	n _e
OAphids	Root knot nematode
O Leaf hopper	O Seed corn maggot
O Lygus	0= Thrips
0 Pod borer	0 Weavils
	Other (specify below)
12. PHYSIOLOGICAL RESISTANCE: (0 = not tested 1 = susceptible 2 =	= resistant)
0 Heat 0 Cold 0 Drought	O Air pollution
13. COMMENTS:	
Side view of seed is somewhat between "oval to the "oval to oblong" category.	l to oblong" and "uniform", but closer

8

U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE LIVESTOCK, MEAT, GRAIN & SEED DIVISION FORM APPROVED: OMB NO. 0581-0005 No certificate for plant variety protection APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE may be issued unless a completed application form has been received (5 U.S.C. (Instructions on reverse) 553) 1. NAME OF APPLICANT(S) 2. TEMPORARY DESIGNATION 3. VARIETY NAME ROGERS BROTHERS SEED COMPANY D-77213 AGATE 4. ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) 5. PHONE (Include area code) FOR OFFICIAL USE ONLY PVPO NUMBER P. O. Box 80 8300061 Idaho Falls, ID 83402 (208) 522-0143 6. GENUS AND SPECIES NAME 7. FAMILY NAME (Botanical) TIME Phaseolus vulgaris Leguminoseae 1:30 A.M. X P.M. 8. KIND NAME AMOUNT FOR FILING 9. DATE OF DETERMINATION \$1,000 RECEIVED DATE Dry Edible Bean Summer 1980 2/11/83 10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION (Corporation, AMOUNT FOR CERTIFICATE partnership, association, etc.) \$ 500.00 Corporation 11. IF INCORPORATED, GIVE STATE OF INCORPORATION 12. DATE OF INCORPORATION Feb. 25, 1975 Delaware 13. NAME AND ADDRESS OF APPLICANT REPRESENATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS Mr. Charles Green ROGERS BROTHERS SEED COMPANY P. O. BOX 80 IDAHO FALLS, IDAHO 83402 14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED Exhibit A, Origin and Breeding History of the Variety (See Exhibit C, Objective Description of the Variety (Request form Section 52 of the Plant Variety Protection Act.) from Plant Variety Protection Office.) Exhibit B, Novelty Statement Exhibit D, Additional Description of the Variety 15. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act.) Yes (If "Yes," answer items 16 and 17 below) X No 16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE 17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION LIMITED AS TO NUMBER OF GENERATIONS? BEYOND BREEDER SEED? Foundation Registered Certified 18. DID THE APPLICANT(S) FILE FOR PROTECTION OF THE VARIETY IN THE U.S. OR OTHER COUNTRIES? Yes (If "Yes," give names of countries and dates) No 19. HAVE RIGHTS BEEN GRANTED IN THE U.S. OR OTHER COUNTRIES? Yes (If "Yes," give names of countries and dates) 20. The applicant(s) declare(s) that a viable sample of basic seeds of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable. The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act. Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties. SIGNATURE OF APPLICANT American Gales Manager an 21 SIGNATURE OF APPLICANT DATE

INSTRUCTIONS

General: Send an original copy of the application and exhibits, at least 2,500 viable seeds, and \$500 fee (\$250 filing fee and \$250 examination fee) to U.S. Department of Agriculture, Agricultural Marketing Service, Livestock, Meat, Grain and Seed Division, Plant Variety Protection Office, National Agricultural Library Building, Beltsville, Maryland 20705. (See section 180.175 of the Regulations and Rules of Practice.) Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.

Item Give the date the applicant determined that he had a new variety based on (1) the definition in section 41(a) 9 of the Act and (2) the date a decision was made to increase the seed. Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding 14a method; (2) the details of subsequent stages of selection and multiplication; (3) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified and (4) evidence of uniformity and stability. Give a summary statement of the variety's novelty. Clearly state how this novel variety may be distinguished 14b from all other varieties in the same crop. If the new variety most closely resembles one or a group of related varieties: (1) identify these varieties and state all differences objectively; (2) attach statistical data for characters expressed numerically and demonstrate that these differences are significant; and (3) submit, if helpful, seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty. Fill in the Exhibit C, Objective Description form, for all characteristics for which you have adequate data. 14c Describe any additional characteristics that are not described, or whose description cannot be accurately 14d conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the description of characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc. If "Yes" is specified (seed of this variety be sold by variety name only as a class of certified seed) the 15 applicant may NOT reverse his affirmative decision after the variety has either been sold and so labeled, his decision published, or the certificate has been issued. However, if the applicant specified "No," he may change his choice. (See section 180.16 of the Regulations and Rules of Practice.) See section 42 of the Plant Variety Protection Act and section 180.7 of the Regulations and Rules of 16 Practice.

DRY EDIBLE BEAN

AGATE

EXHIBIT A Origin and Breeding History

The pinto bean 'AGATE' was derived from the following cross pollination in the greenhouse during the Winter 1972-73.

OURAY X PINTO UI 114

Details of selection and multiplication.

	YEAR	GENERATION	FIELD NUMBER	HAR	BULK	PLANT	# SINGLE SELECTIONS
Winter	1972-73	f ₁	Greenhouse		3 oz.		
Summer	1973	f ₂ I	73-121	3#	1 oz.	1	
Summer	1974		74-294			3	
Summer	1975	•	75-675			1	
Summer	1976		76-1422			1	
Winter	1976-77		Greenhouse		3 oz.		
Summer	1977		77-853	2#		1	
Summer	1978	f ₈	78-2827	13#			
Summer	1980		080-2742	270#			

The variety 'AGATE' was stabilized in the f_7 generation. 'AGATE' has been observed to be stable and uniform for 4 generations in the field since 1978. We have made no observations of any variants in the population.

Stock D80-2742 has been increased to commercial size quantities. This variety will be maintained through the procedure of pure line selection for stock seed.

THATE A DESCRIPTION OF THE REAL PROPERTY.

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				OF PERSON	

The variety "A A" we stablished the peneration. ThuAIR' has been observed to be table as uniform to harmites in the felt stand 1978. The have made no accordance in the section.

Stock 180-2747 bas been in receive a corrected pize quarteles. This will be read to receive a of pure line and cretus for cocks seed.

DRY EDIBLE BEAN

AGATE

EXHIBIT B

Novelty Statement

Our variety 'AGATE' is most nearly like the variety 'Ouray', however, 'AGATE' differs in that it is more tolerant to heat stress during flowering. 'Ouray' is relatively intolerant of high temperatures during flowering. 'AGATE' experiences less ovule abortion than 'Ouray' under these conditions.

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our variety (GAT' is not makely like to best stress unwise flower'AGATE' differs in a to to is not atalement to heat stress unwise flowertends 'Gursy' is relatively the range flowering. 'AGATE' experiences has evale thereton than 'Ourse' under chase

2-11-83

DRY EDIBLE BEAN

'AGATE'

EXHIBIT B

SUPPLEMENT NOVELTY STATEMENT

Our variety, 'AGATE' is a taller plant than the variety 'Ouray'. The measurements for this determination were made between the crown and the stem position of attachment of the highest pod.

	Rep. I	II	III	IV	V	MEAN
'Ouray'	39	36	36	39	38	37
'AGATE'	48	43	40	45	41	43

The experiment was set up as a randomized block design with 5 replications. Each data value in the above table represents the average of 10 plants. Values are expressed in centimeters.

Standard deviation of the difference (1.45)



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RECEI LE 1983

DRY EDIBLE BEAN

AGATE

EXHIBIT D

Botanical Description

'AGATE' has an upright, open bush plant habit which holds its pods quite high. The bush has considerable branching from a heavy sturdy stem. 'AGATE' flowers profusely with many flowers being visible above the canopy. It matures in 85 days at Twin Falls, Idaho, which is the same as for Pinto UI 111. 'AGATE' has resistance to the BV₁ and NY₁₅ strains of bean common mosaic virus, as well as numerous races of bean rust. 'AGATE' is susceptible to common blight and curly top. In Southern Idaho, 'AGATE' yields as well or better than Pinto UI 111 (a vine type). It does well under high fertility where conventional vine types may become too viney. 'AGATE' has an average seed size of 1300 seeds/lb., which is the same as Pinto UI 111.

NAZI STATE OF THE

18 A. . . .

THE REPORTS

Botsmice I sortphion

AGATE' has an ight, onen biek plant bibet which only the political high. The hort has reastderable branching from a constant start.

AGATH' flowers anolused with resistant with the branch of the constant in AS does not be seen that he say that the same start for Forth 111. "AFTE' has resistant to the first has mercons races of hear upt. "ACCU," to suspend monale views, as vell as mercons races of hear upt. "ACCU," to suspend to down the letter that are out tops in Southern Idoho, "ACATE; wheles as well as representation while types any become too vincy. The factor has an increase seed and of the vince types any become too vincy. That the up in the respondent of the constant as the constant as the same as "ACATE" has an increase seed and of the vince the same as "ACATE" has an increase seed and of the constant as the built.

State of Belaware



Office of Secretary of State

I, MICHAEL HARKINS, SECRETARY OF STATE OF THE STATE OF DELAWARE

DO HEREBY CERTIFY THAT "ROGERS BROTHERS SEED COMPANY", FILED A

CERTIFICATE OF AMENDMENT, CHANGING ITS CORPORATE TITLE TO "ROGERS

NK SEED CO.", ON THE TWENTY-SIXTH DAY OF DECEMBER, A.D. 1990, AT 10:01

O'CLOCK A.M.

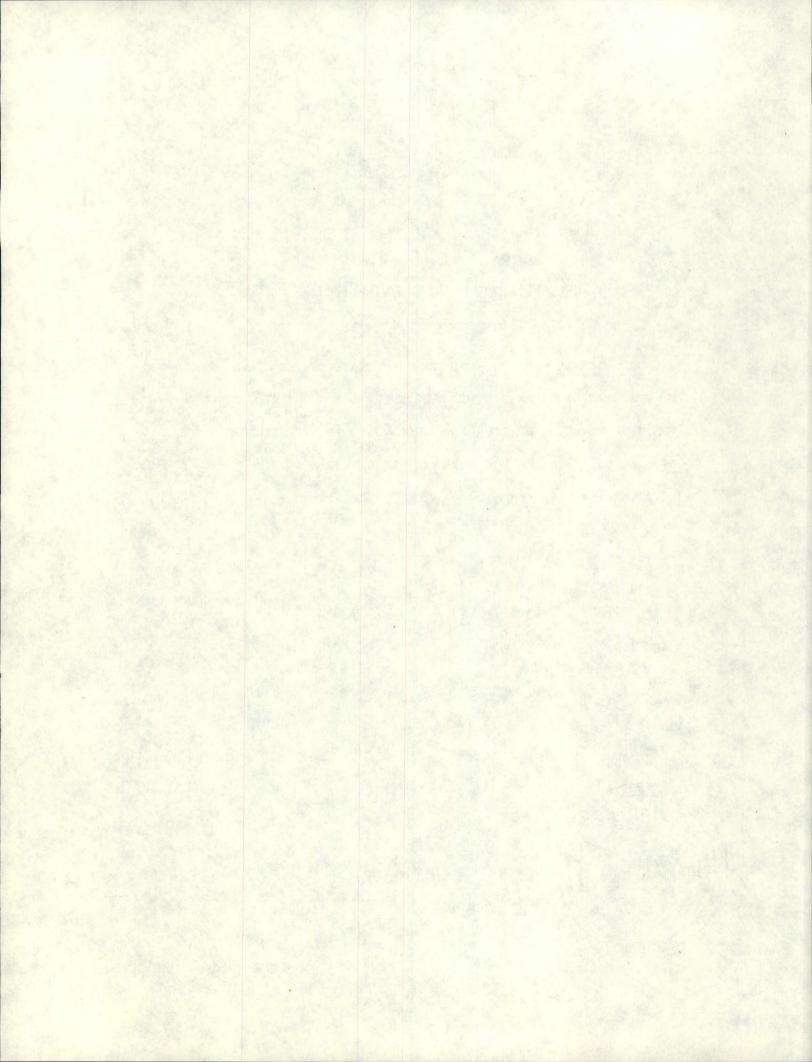


Michael Harkins, Secretary of State

AUTHENTICATION:

m. Magnisly

DATE: 10/08/1991



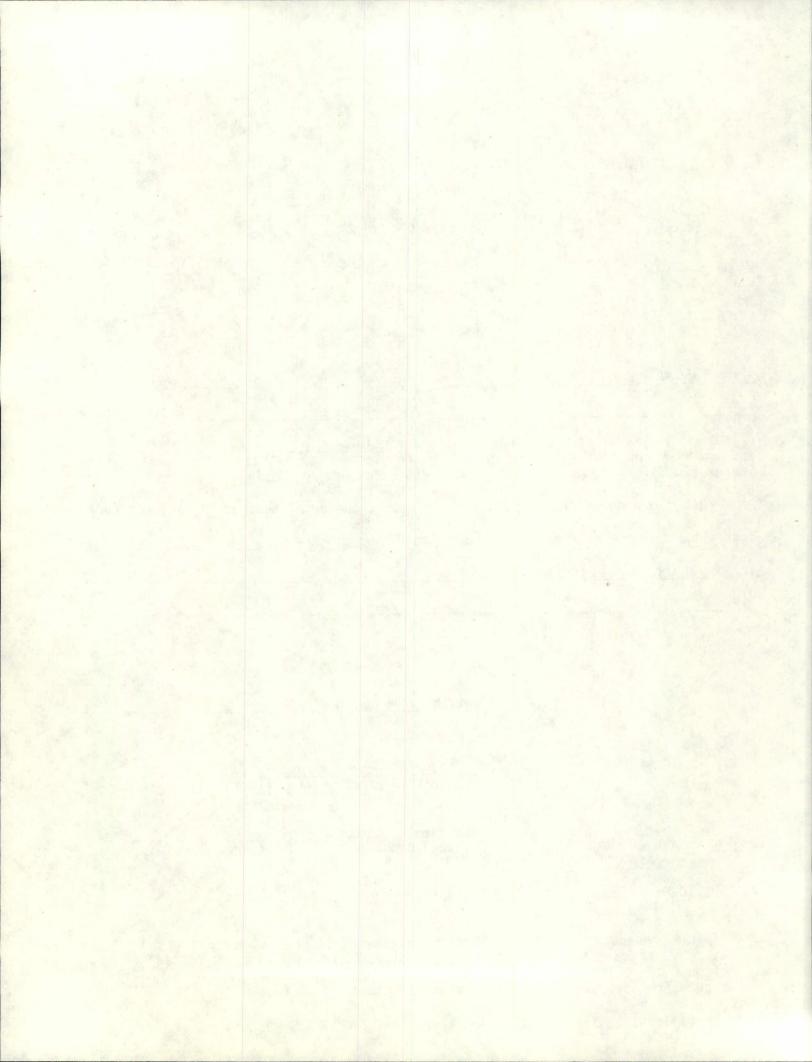
DO NOT WRITE IN THIS SPACE

AMENDED
STATEMENT AND DESIGNATION
BY
FOREIGN CORPORATION

ROGERS NK SEED CO.	2 compount:
	, a corporation
organized and existing under the	laws of Delaware
and which is presently qualified	for the transaction of intrastate business in the lowing statements and/or designation:
That the name of the corpora	ation has been changed to that hereinabove set fort
and that the name relinquished a	t the time of such change was
ROGERS BROTHERS SEED COMPANY	
THE PROPERTY OF THE PARTY OF TH	
	ROCERS NK SEED CO.
	(Name of Corporation)
	William B. alben
	(Signature of corporate officer)
	na.
	William B. Albers, President (Typed name and title of officer signing)
	(Typed fidile did Little of Officer Signing)

INSTRUCTIONS:

- 1. If this Amended Statement shows a change of corporate name, there must be attached to this Amended Statement a certificate of an authorized public official of the state or place of incorporation, that such change of name was made in accordance with the laws of that state or place.
- 2. For filing this Amended Statement there is a fee of \$15.00.



State of Delaware Office of the Secretary of State

PAGE 1

I, WILLIAM T. QUILLEN, SERCRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THAT THE SAID "ROGERS NK SEED CO.", FILED A CERTIFICATE OF AMENDMENT, CHANGING ITS NAME TO "ROGERS SEED CO.", THE FIFTH DAY OF MAY, A.D. 1994, AT 9 O'CLOCK A.M.



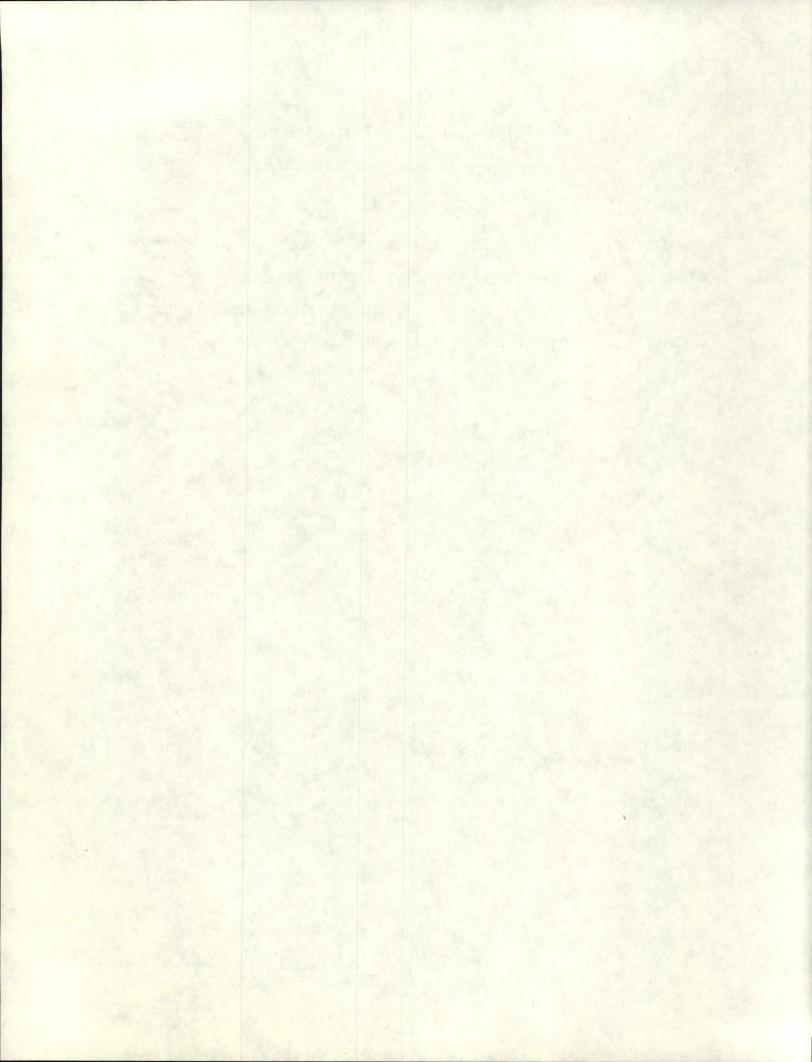
William T. Quillen, Secretary of State

AUTHENTICATION:

7120759

DATE:

0810041



STATE OF DELAWARE SECRETARY OF STATE DIVISION OF CORPORATIONS FILED 09:00 AM 05/05/1994 944080001 - 810041

CERTIFICATE OF AMENDMENT

OF

CERTIFICATE OF INCORPORATION OF ROGERS NK SEED CO.

Adopted in accordance with the provisions of Section 242 of the General Corporation

Law of the State of Delaware

EFFECTIVE DATE: June 1, 1994

We, Willem van Overschot, President, and Richard B. Geller, Secretary, of Rogers NK Seed Co., a corporation existing under the laws of the State of Delaware, do hereby certify as follows:

FIRST: The Certificate of Incorporation of the corporation was filed on 2/27/75.

SECOND: The Certificate of Incorporation of said corporation has been amended as follows:

By striking out the whole of Article I thereof as it now exists and inserting in lieu and instead thereof, a new Article I, reading as follows:

ARTICLE I

Name

The name of the Corporation is ROGERS SEED CO.

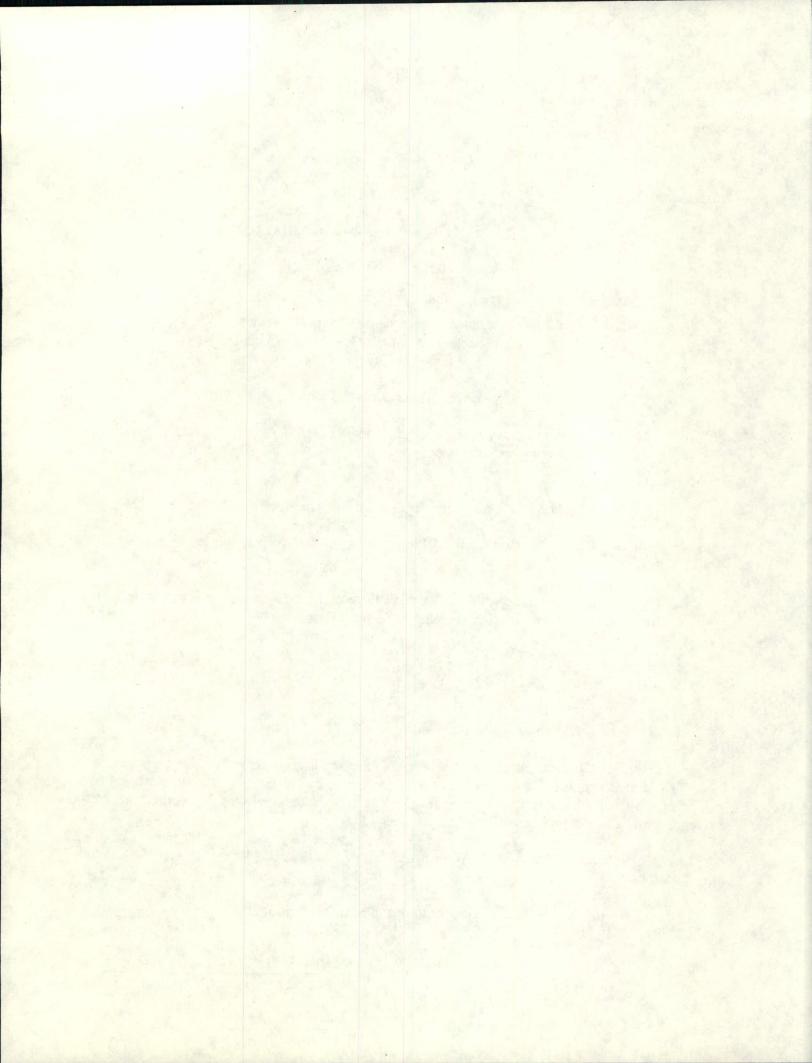
THIRD: Such amendment has been duly adopted in accordance with the provisions of the General Corporation of Law of the State of Delaware, by the unanimous written consent of all of the stockholders entitled to vote in accordance with the provisions of Section 228 of the General Corporation Law of the State of Delaware.

FOURTH: See attached Written Consent of Sole Shareholder and Board of Directors' Resolution.

IN WITNESS WHEREOF, we have signed this certificate this 13 day of April 1994.

Willem van Overschot, President

Richard B Geller, Secretary



ROGERS NK SEED CO.

WRITTEN CONSENT OF SOLE SHAREHOLDER

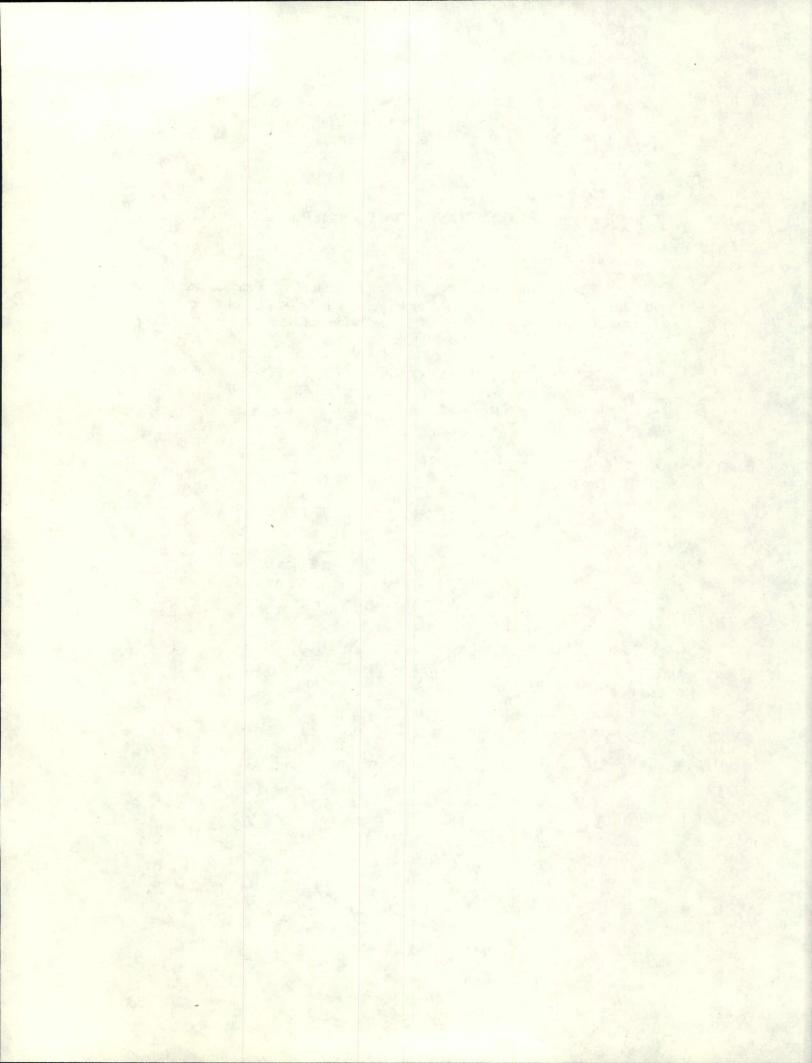
SANDOZ CORPORATION, owner of all of the issued and outstanding shares of ROGERS NK SEED CO., hereby consents, pursuant to Section 228 of the Delaware General Corporation Law, to the adoption of the following resolution as and for the act of the shareholder:

RESOLVED, that SANDOZ CORPORATION, as sole shareholder, approves the amendment to Article I of the Certificate of Incorporation of ROGERS NK SEED CO., changing its name to ROGERS SEED CO.

Dated: 122, 1994

Heinz P. Imhof,

Chief Executive Officer Sandoz Corporation



ROGERS NK SEED CO.

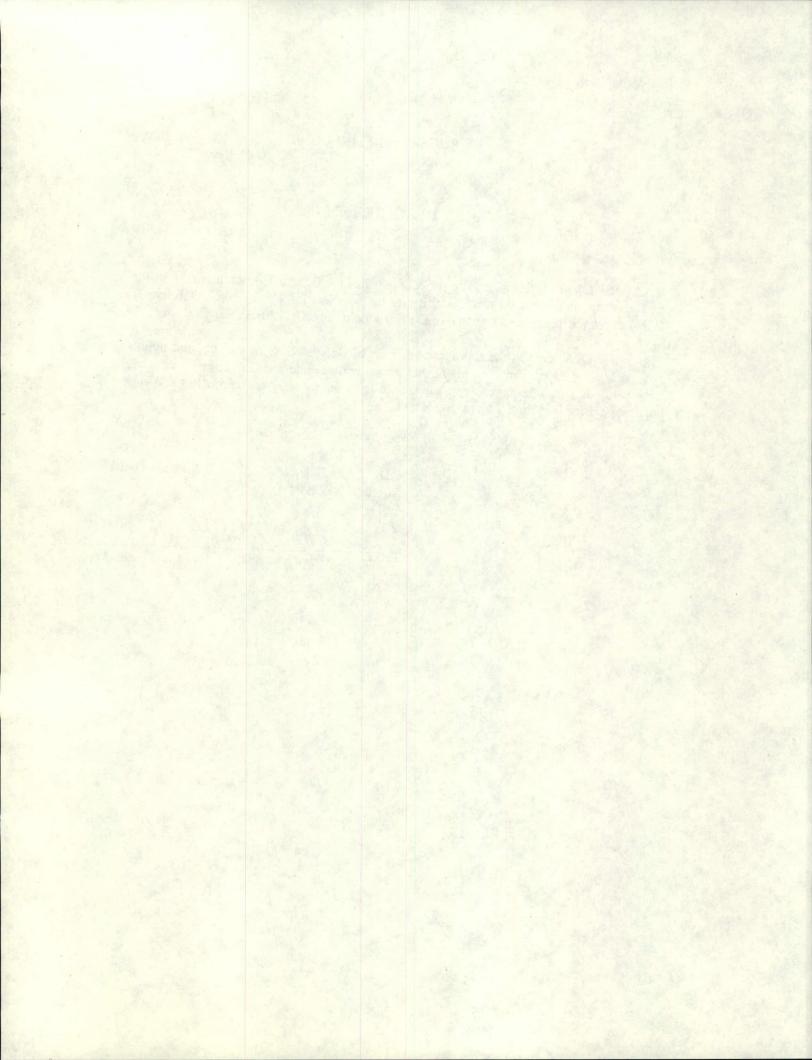
RESOLUTION

RESOLVED, that according to Section 242 of the General Corporation Law of the State of Delaware, that Article I of the Certificate of Incorporation be amended, effective June 1, 1994, to read as follows: The name of the Corporation is ROGERS SEED CO.; and, further,

RESOLVED, that the appropriate officers of Rogers NK Seed Co. be, and they hereby are, authorized to take any and all further action and execute and deliver any and all further documents that may be necessary or desirable in order to carry out and effectuate fully the purposes set forth in the foregoing resolution.

ADOPTED UNANIMOUSLY BY THE BOARD MARCH 31, 1994

Richard B. Geller, Secretary



State of Delaware Office of the Secretary of State

PAGE 1

I, EDWARD J. FREEL, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF MERGER, WHICH MERGES:

"ROGERS SEED CO.", A DELAWARE CORPORATION,

WITH AND INTO "NOVARTIS SEEDS, INC." UNDER THE NAME OF
"NOVARTIS SEEDS, INC.", A CORPORATION ORGANIZED AND EXISTING
UNDER THE LAWS OF THE STATE OF DELAWARE, AS RECEIVED AND FILED
IN THIS OFFICE THE TWENTY-FIFTH DAY OF JUNE, A.D. 1997, AT 9
O'CLOCK A.M.

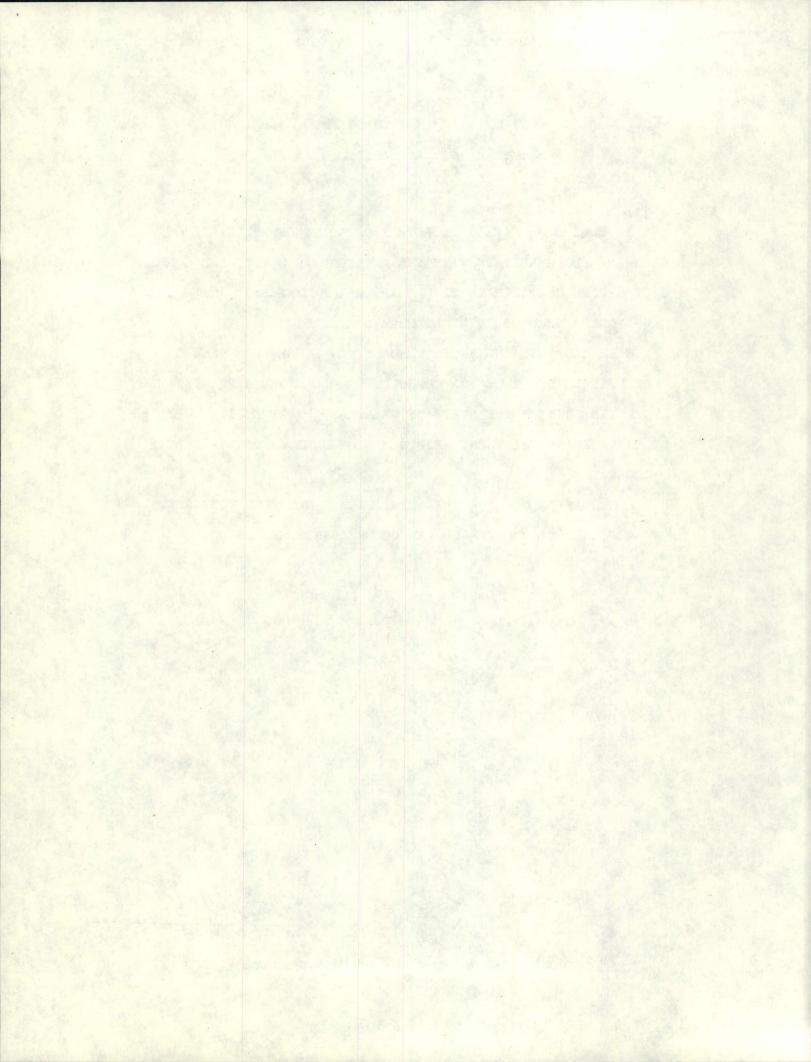
A CERTIFIED COPY OF THIS CERTIFICATE HAS BEEN FORWARDED TO THE NEW CASTLE COUNTY RECORDER OF DEEDS FOR RECORDING.

Edward J. Freel, Secretary of State

AUTHENTICATION:

8531908 06-26-97

DATE:



STATE OF DELAMARE SECRETARY OF STATE DIVISION OF CORPORATIONS FILED 09:00 AM 06/25/1997 971211787 - 0829320

OF ROGERS SEED CO. INTO NOVARTIS SEEDS, INC.

The undersigned corporation organized and existing under and by virtue of the General Corporation Law of Delaware,

DOES HEREBY CERTIFY:

FIRST: That the name and state of incorporation of each on the constituent corporations of the merger is as follows:

NAME

STATE OF INCORPORATION

Novartis Seeds, Inc. Rogers Seed Co.

Delaware Delaware

SECOND: That an Agreement and Plan of Merger between the parties to the merger has been approved, adopted, certified, executed and acknowledged by each of the constituent corporations in accordance with the requirements of section 251 of the General Corporation Law of Delaware

THIRD: That the name of the surviving corporation is Novartis Seeds, Inc.

EQURTH: That the Certificate of Incorporation of Novartis Seeds, Inc., a Delaware corporation which will survive the merger, shall be the Certificate of Incorporation of the surviving corporation.

That the executed Agreement and Plan of Merger is on file at the principal place of business of the surviving corporation, the address of which is 7500 Olson Memorial Highway, Golden Valley, MN 55427.

SIXTH That a copy of the Agreement and Plan of Merger will be furnished by the surviving corporation, on request and without cost, to any stockholder of any constituent corporation.

SEVENTH: That this Certificate of Merger shall be effective on July 1, 1997.

Dated June 23, 1997

NOVARTIS SEEDS, INC.

Name: Edward C. Resler

Title: Vice President & General Counsel

